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<u>AMENDMENTS</u>

In the Claims:

Please amend claims 1 and 11 as indicated below. Please cancel claims 5, 10 and 15-20 without prejudice. Currently amended claims are presented with markings to indicate the changes made, wherein a strikethrough is used to designate deletions and under ining is used to designate additions.

1. (Currently amended) A method for making a crosslinked polymer composition capable of forming a hydrogel comprising:

providing a first composition comprising at least one thiosulfonate polymer derivative, wherein said at least one thiosulfonate polymer derivative comprises at least three thiosulfonate functional groups; has the formula,

wherein POLY is a water-soluble polymer, (n) is 3 to about 25, X is a linking group, Y is a moiety derived from a molecule having at least three nucleophilic groups, and I, is hydrogen, or an organic radical;

exposing said first composition to a base under conditions sufficient to initiate crosslinking between said thiosulfonate functional groups; and

allowing said crosslinking to proceed to thereby form said crosslinked polymer composition capable of forming a hydrogel.

- 2. (Original) The method of claim 1, wherein said first composition is substantially free of a crosslinking agent or redox catalyst.
- 3. (Previously presented) The method of claim 1, wherein said at least one thiosulfonate polymer derivative is a 3 to about 100 arm thiosulfonate ester of a water-soluble polymer.

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- 4. (Original) The method of claim 1, wherein said first compositio a comprises a single thiosulfonate polymer derivative component capable of crosslinking upon exposure to a base.
 - 5. (Canceled).
- 6. (Original) The method of claim 1, wherein POLY is a poly(ethylene glycol); (n) is 4; X is selected from the group consisting of alkylene groups, alkylene amides, alkylene esters, and alkylene ethers; and Y is derived from a moiety selected from the group consisting of glycerol, oligoglycerols, pentaerythritol, carbohydrates, cyclodextrin, and amin analogues thereof.
- 7. (Original) The method of claim 1, wherein said first compositio 1 further comprises at least one active agent.
- 8. (Previously amended) The method of claim 7, further comprising incorporating at least one biologically active moiety in the hydrogel.
- 9. (Previously amended) The method of claim 7, wherein said at 1 ast one biologically active moiety is entrapped within the crosslinked polymer composition during said crosslinking or is covalently linked to said at least one thiosulfonate polymer derivative.
 - 10. (Canceled).
- 11. (Currently amended) A method for forming a crosslinked polyr er composition capable of forming a hydrogel having desired physical properties from a single component hydrogel-forming composition, said method comprising:

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providing a single component hydrogel-forming composition comprising a thiosulfonate polymer derivative, wherein said thiosulfonate polymer derivative comprises at teast three thiosulfonate functional groups; has the formula.

$$Y(-POLY - X-S-S-R)_n$$

wherein POLY is a water-soluble polymer, (n) is 3 to about 25, X is a linking g oup, Y is a moiety derived from a molecule having at least three nucleophilic groups, and I is hydrogen, or an organic radical;

exposing said single component hydrogel forming composition to a base under conditions sufficient to initiate crosslinking between said thiosulfonate functional groups; and

allowing said crosslinking to proceed and thereby form said crosslinked polymer composition capable of forming a hydrogel.

- 12. (Original) The method of claim 11, wherein said base has a pH ranging from about 7.4 to about 9.0.
- 13. (Original) The method of claim 11, wherein said single component hydrogel-forming composition is exposed to said base at a temperature ranging from about 20 °C to about 50 °C.
- 14. (Original) The method of claim 11, wherein said thiosulfonate 1 olymer derivative is present in said single component hydrogel-forming composition at a concent ation ranging from about 2% w/v to about 25% w/v.
 - 15. (Canceled).
 - 16. (Canceled).

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- 17. (Canceled).
- 18. (Canceled).
- 19. (Canceled).
- 20. (Canceled).

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